Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

*Complete sentences aren’t necessary, but complete ANSWERS are!*

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**Rub-A-Dub-Dub, Acid Eats Through a Tub**

Can you dissolve through a bath, floor, and ceiling just by filling up the tub with hydrofluoric acid (HF)?

1. Which safety precautions do Jamie and Adam need to take while working with hydrofluoric acid?
2. What happens when Jamie and Adam add 100mL hydrofluoric acid to the ceramic, linoleum, drywall, steel, wood, iron, and meat samples in the lab?

|  |  |
| --- | --- |
| **Type of Material** | **What happened?** |
| Ceramic |  |
| Linoleum |  |
| Drywall |  |
| Steel |  |
| Wood |  |
| Iron |  |
| Pig meat |  |

1. List some examples of **halogens** and explain what/where they are.
2. Acids are corrosive because they release hydrogen atoms when they react with other substances. Why is hydrofluoric acid less corrosive than you might think?
3. What happens when Adam and Jamie add sulfuric acid and “special sauce” to the pig in the bathtub?
4. Complete the claim/evidence/reasoning chart on the next page. Feel free to write your response on a separate sheet of paper instead.

**Question: Does Breaking Bad accurately portray the properties of hydrofluoric acid?**

|  |
| --- |
| **Claim:** *What you are trying to argue* |

|  |  |
| --- | --- |
| **Evidence:** *Quote or specific example that supports your claim.* | **Reasoning:** *Explain how your evidence supports your claim.* |
|  |  |

|  |  |
| --- | --- |
| **Evidence:** *Quote or specific example that supports your claim.* | **Reasoning:** *Explain how your evidence supports your claim.* |
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|  |  |
| --- | --- |
| **Evidence:** *Quote or specific example that supports your claim.* | **Reasoning:** *Explain how your evidence supports your claim.* |
|  |  |